

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

DEC - 3 2004

OFFICE OF AIR AND RADIATION

Mr. Kevin Brown Lubrizol Engine Control Systems 165 Pony Drive Newmarket, Ontario L3Y 7V1 Canada

Dear Mr. Brown:

The U.S. Environmental Protection Agency (EPA) has reviewed your request for extension of the verification of the Lubrizol Engine Control Systems (LECS) AZ Purifier and AZ Purimuffler diesel oxidation catalyst for use with Ultra Low Sulfur Diesel (ULSD) fuel. Based on our evaluation of the verification application, the test data, and additional information provided, EPA hereby verifies that this technology reduces emissions of certain criteria pollutants by the percentages described in the table below.

This technology is approved for use on the following engines and/or vehicles provided all of the required operating criteria are met as described below:

All non-EGR equipped, 4-stroke, highway, medium heavy-duty diesel engines produced by Cummins Engine Company and Navistar/International Truck and Engine Corporation including, turbocharged or naturally aspirated, mechanically or electronically injected and originally manufactured from 1991 through 2003 model years and which were originally produced without diesel oxidation catalysts or diesel particulate filters.

Technology	Baseline Fuel (sulfur content)	Fuel with Technology (sulfur content)	Particulate Matter (PM) %	Carbon Monoxide (CO) %	Hydro- carbons (HC) %	Oxides of Nitrogen (NOx) %
AZ Purimuffler AZ Purifier	≤500 ppm ≤30 ppm	≤30 ppm	40	40	70	n/a

The following operating criteria must be met in order for appropriately retrofitted engines to achieve the aforementioned emissions reductions:

- 1. The applicable vehicles or engines must be operated on a fuel which contains no more than 30 ppm of sulfur.
- 2. The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.

Information on the AZ Purimuffler and AZ Purifier diesel oxidation catalysts, percent reductions, applicable engines, and in-use testing program will be posted on the EPA Voluntary Diesel Retrofit Program website (www.epa.gov/otaq/retrofit). As you know, LECS will be responsible for completing the required in-use testing program and for submitting all in-use testing data to EPA.

Thank you for participating in EPA's Voluntary Diesel Retrofit Program. If you have any questions or comments, please contact Steve Albrink, of my staff, at (202)-343-9671.

Sincerely,

Merrylin Zaw-Mon, Director

Certification & Compliance Division

Office of Transportation and Air Quality